

What Is Claimed Is:

1. (currently amended) A differential carrier for a differential drive, which differential carrier is supported so as to be rotatable around its longitudinal axis (A) and which is rotatably drivable, comprising:

two output gears which are supported in the differential carrier coaxially relative to the longitudinal axis (A); and

a plurality of differential gears which are rotatably supported on a cross member, said cross member having at least three bearing arms extending radially relative to the longitudinal axis (A) and being held in the differential carrier, said differential gears meshingly engage the output gears,

wherein two first bearing arms of the cross member positioned opposite one another are connected to one another and form at least one central transverse aperture, and

wherein at least one second bearing arm of the cross member is produced separately from said two first bearing arms and comprises a first portion with a first diameter (d) for being inserted into the at least one transverse aperture, a second portion with a greater second diameter (D) for receiving the associated differential gear, as well as a transition portion connecting the first and the second portion and having a continuously increasing diameter.

2. (currently amended) A differential carrier according to claim 1, wherein the first bearing arms are produced so as to form one piece.

3. (currently amended) A differential carrier according to claim 1 wherein, a ratio of a diameter of the transverse aperture to a diameter of the first bearing arms, in the region of the differential gears, ranges between 0.4 and 0.6.

4. (currently amended) A differential carrier according to claim 1, wherein at the at least one second bearing arm, the ratio of the first diameter (d) of the first portion relative to the second diameter (D) of the second portion ranges between 0.4 to 0.6.

5. (currently amended) A differential carrier according to claim 1, wherein, in the region adjoining the first portion, the transition portion of the inserted arm comprises a first radius (R1), and a ratio of the first radius (R1) relative to the diameter (D) of the second portion ranges between 0.4 and 0.6.

5 6. (currently amended) A differential carrier according to claim 1, wherein in the region adjoining the second portion, the transition portion comprises a second radius (R2), and a ratio of the second radius (R2) relative to the diameter (D) of the second portion ranges between 0.4 and 0.6.

10 7. (currently amended) A differential carrier according to claim 1, wherein the transition portion comprises a conical outer face which, together with the arm axis, encloses an angle (a) which is smaller than an angle which is enclosed between a conical face (48) defined by an envelope of the transition portion and the longitudinal axis.

15 8. (currently amended) A differential carrier according to claim 1 comprising two second bearing arms which directly support one another by their first portions.

9. (currently amended) A differential carrier according to claim 1, wherein the bearing arms are inserted into radial bores in the differential carrier and are secured radially outwardly with securing rings.

20 10. (currently amended) A differential carrier according to claim 1, wherein the differential gears are directly slidingly supported on the bearing arms.

11. (currently amended) A differential carrier according to claim 1, wherein, in the region of the bearing of the differential gears, the bearing arms comprise lubricating grooves.

25 12. (currently amended) A differential carrier according to claim 1 comprising an integrally formed-on flange.

13. (currently amended) A differential carrier according to claim 12, comprising a dish-shaped part carrying the flange and a cover which, with reference to the cross member, is arranged axially opposite the flange.

14. (currently amended) A differential carrier according to claim 1, comprising a locking coupling between the assembly comprising the cross member, the differential gears and the output gears; and the cover.

15. (currently amended) A differential carrier according to claim 14, comprising a shear pump between the locking coupling and the cover (15).

16. (new) A differential carrier according to claim 3, wherein at the at least one second bearing arm, the ratio of the first diameter (d) of the first portion relative to the second diameter (D) of the second portion ranges between 0.4 to 0.6.

17. (new) A differential carrier according to claim 3, wherein, in the region adjoining the first portion, the transition portion of the inserted arm comprises a first radius (R1), and a ratio of the first radius (R1) relative to the diameter (D) of the second portion ranges between 0.4 and 0.6.

18. (new) A differential carrier according to claim 4, wherein, in the region adjoining the first portion, the transition portion of the inserted arm comprises a first radius (R1), and a ratio of the first radius (R1) relative to the diameter (D) of the second portion ranges between 0.4 and 0.6.

19. (new) A differential carrier according to claim 3, wherein in the region adjoining the second portion, the transition portion comprises a second radius (R2), and a ratio of the second radius (R2) relative to the diameter (D) of the second portion ranges between 0.4 and 0.6.

20. (new) A differential carrier according to claim 4, wherein in the region adjoining the second portion, the transition portion comprises a second radius

(R2), and a ratio of the second radius (R2) relative to the diameter (D) of the second portion ranges between 0.4 and 0.6.

21. (new) A differential carrier according to claim 5, wherein in the
5 region adjoining the second portion, the transition portion comprises a second radius (R2), and a ratio of the second radius (R2) relative to the diameter (D) of the second portion ranges between 0.4 and 0.6.